Max’s Magnificent Measurement Challenge

Learning objective: To consolidate understanding of converting between units of measurement (length, mass, and volume) and solving word problems involving money and measures.

Help Max the monkey solve these measurement puzzles! Read each question carefully, choose the correct answer or provide the requested value. Keep your units consistent.

Answer Key: 1. C (2000g); 2. True; 3. 500ml; 4. B (350cm); 5. £8.50; 6. False (1km = 1000m); 7. 4000; 8. A (4500ml); 9. True; 10. 750g. Reasoning: To convert kg to g, multiply by 1000. To convert m to cm, multiply by 100. To convert litres to ml, multiply by 1000.

Word bank: millimetres · centimetres · metres · kilometres · millilitres · litres · grams · kilograms · convert · equivalent

1. Max has a bunch of bananas that weighs 2kg. How many grams is this? A) 20g B) 200g C) 2000g* D) 0.2g (1 mark)

2. True or False: 500cm is exactly the same length as 5 metres. (1 mark)

3. If a bottle holds 1 liter of juice and you pour out half, how many millilitres are left? (1 mark)

4. Which of these is the correct conversion for 3.5 metres? A) 35cm B) 350cm* C) 3500cm D) 3.5cm (1 mark)

5. Max buys a notebook for £4.50 and a pen for £4.00. How much change does he get from a £10 note? (1 mark)

6. True or False: 100 metres is the same as 1 kilometre. (1 mark)

7. How many millilitres are in 4 litres? (1 mark)

8. Which measurement is the greatest? A) 4500ml* B) 4 litres C) 4000ml D) 400ml (1 mark)

9. True or False: 750g is heavier than 0.5kg. (1 mark)

10. Max balances a scale with a 500g weight and a 250g weight. What is the total mass in grams? (1 mark)

Draw: Draw a set of kitchen scales. On one side of the scale, draw an apple that weighs 250g. On the other side, draw enough items so that the scale is perfectly balanced at 250g total.

Extension challenge: Greater Depth Challenges: 1. Explain why we use kilometres instead of centimetres to measure the distance between two towns. 2. Compare and contrast measuring volume in millilitres versus litres; when is each unit most appropriate? 3. Justify your answer: If Max has £20 and wants to buy three items costing £6.20, £5.80, and £7.50, does he have enough money? Show your working. 4. What might happen if a scientist measured medicine in litres instead of millilitres? 5. Design a multi-step word problem involving at least two different units of measurement for a friend to solve. 6. Can you describe a method to estimate the height of a tree without climbing it? Explain the importance of standard units in your method.